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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,739	10/13/2003	David W. Scheimann	7751	2797

49459 7590 09/18/2008
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EXAMINER	
SAYALA, CHHAYA D	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
09/18/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/683,739	**Applicant(s)** SCHEIMANN, DAVID W.	
	Examiner C. SAYALA	**Art Unit** 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-17* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a)☐ All b)☐ Some * c)☐ None of:
  1.☐ Certified copies of the priority documents have been received.
  2.☐ Certified copies of the priority documents have been received in Application No. _____.
  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 5, 8 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Moffett (US Patent 6132625).

Moffett teaches a process wherein an aqueous stream comprising biosolids from food processing plants such as the wet-milling of grains, processing soybeans, plants for grain processing, breweries and distilleries is treated with polymers that aid flocculation. Biosolids are said to be fats, oils and protein. See col. 3, lines 2-17. The organic polymers that flocculate the biosolids are disclosed at col. 4, line 57 through col. 6, line 24, particularly at col. 6, line 11, which discloses anionic polymers which include AMPS and acrylamide coplymers (compare with instant claim 1). Note that Moffett also describes conventional dewatering devices such as those shown at col. 7, lines 20-25, used to separate flocculated biosolids from the treated stream (claims 1 and 17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moffett in view of Levic et al. (abstract, see PTO-form 1449, **translation ordered) and further in view of Barajas et al. (US Patent 6294622).

Moffett is as described as above, but the reference does not describe the limitations of claims 2, the anionic charges, the viscosity, the cross linking agents, or the claim limitations specifying that the stillage solids are those of corn.

Levic et al. disclose spent grain wastewater with a coagulant and anion and cationic flocculants to improve the efficiency of dewatering the wastewater and obtaining dried spent grain to be used as a feed additive. The reference also discloses the same polymer (AMPS-methacrylic acid copolymer) claimed herein at page 2 of the supplied abstract, but the abstract does not disclose a dewatering device. Both these disclosures' reference to breweries and distilleries and spent grain renders obvious corn stillage, since it is well known that grain such as corn is used in such processes and that the stillage that results contains spent grain and solids.

Barajas et al. elaborates on the flocculants or polymers shown by the above references and also used for their dewatering characteristics. For instance, at col. 4, line 53+, patentees teach anionic monomers that can be used to make the polymer flocculants. The patent also teaches incorporating chain branching agents that provide the necessary crosslinking. See col. 5, lines 4-22, which also includes the limitation of claim 7. Amounts of crosslinking agent to be used are discussed at col. 6, lines 42-53. To optimize amounts to be used in Moffett's process would have been obvious based on such disclosure, since such amounts are obviously result effective variables. Note too that this reference teaches preparing polymers as claimed and uses the reactants as an emulsion (instant claims 2 and 13) as shown in col. 7. With regard to the anionic charge on the polymer and its viscosity (claims 3-4, 9-10, 12 and 14), it would have been obvious to one of ordinary skill in the art to optimize such factors based on routine selection of process conditions required for a specific wastewater stream and for optimal results, barring any evidence on record, to the contrary. See col. 6, lines 25-40 in this regard.

Response to Arguments

Applicant's arguments filed 6/11/2008 have been fully considered but they are not persuasive.

Applicant has argued that the Moffet patent is drawn to wastewater from municipal and industrial sources, that the pH in such a process as well as the temperature and amount of biosolids in these streams are all different from those of the instant invention. He states that Moffet deals with grain processing or breweries and the waste streams from them which would include wheat, barley, rye and corn. On the other hand, he states that the process stream in the instant invention contains protein, as gluten and fiber and germ. The pH and temperature are different, he states, from Moffet and the stillage that is processed contains 7 to 18% solids. Thus he states, there are significant differences.

Based on this argument, the rejection under 35 USC 102 has been re-considered in view of the claims that have been rejected, claims 1, 5, 8 and 17. What is significant is that none of these limitations are in the claims. Furthermore, none of the conditions such as pH and temperature are stated in the instant specification to add weight to such an argument.

With regard to the Moffet patent, the reference teaches that the coagulants and flocculants used, the anionic polymers, are for starches and grains, for food processing plants that include plants for grains, for breweries, distilleries and wineries, wherein the biosolids are those that include sugars, starch and other carbohydrates in addition to protein, fats and oils. This shows the application of these polymers for a wide array of processes. These processes also include grain stillage solids. With regard to the Levic reference, applicant states that calcium hydroxide is used as a coagulant and the anionic flocculant. The reference shows a pH of 11 at a temperature of 80^0. Levic, applicant states fails to disclose any information regarding typical suspended solids loading of the wastewater stream and the solids are used for animal feed. The reference has been used is conjunction with Moffet and only supplements what has already been shown by Moffet. The claim are drawn to two steps for dewatering stillage, adding to solids an effective amount of coagulating and flocculating amounts of anionic polymer and separating the water. The end use of the solids is therefore, of no matter. That the Levic reference uses calcium hydroxide is not excluded by the instant claims and neither is the pH, which is not significant since the claims have been met by these references, claims which do not include such limitations as pH.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Sayala whose telephone number is (571) 272-1405. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. SAYALA/
Primary Examiner, Art Unit 1794